

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

What is claimed is:

1. (Original) A method for increasing cerebral blood flow in a patient, comprising the steps of:

 providing a transcutaneous electrical stimulating device;

 applying the electrical stimulating device to the skin of the patient at a region adjacent the cervical sympathetic chain; and

 operating the electrical stimulating device to stimulate or inhibit nerve impulses of the cervical sympathetic chain, thereby producing vasodilation in the cerebral vasculature, thereby increasing cerebral blood flow.
2. (Original) The method of claim 1, further comprising the steps of measuring cerebral blood flow before and after the step of operating the electrical stimulating device.
3. (Original) The method of claim 2, further comprising the step of determining the increase in cerebral blood flow produced by operating the electrical stimulating device.
4. (Original) The method of claim 1, wherein the electrical stimulating device is applied to the skin of the patient at a region adjacent the superior cervical ganglion.

5. (Original) The method of claim 1, wherein the electrical stimulating device is applied to the skin of the patient at a region adjacent the stellate ganglion.

6. (Original) The method of claim 1, wherein the electrical stimulating device is applied to the skin of the patient at a region 2 cm to the right of spinous processes of vertebral bodies C5-6.

7. (Original) The method of claim 1, wherein the electrical stimulating device is a GRASS stimulator.

8. (Original) The method of claim 1, wherein the electrical stimulating device is operated to produce electrical stimulation comprising a rectangular square pulse.

9. (Original) The method of claim 1, wherein the electrical stimulating device is operated to produce electrical stimulation comprising a pulse of 1 msec duration, 50 Hz, and 10 volts, with a stimulus train duration of 20 msec.

10. (Original) The method of claim 1, wherein the electrical stimulating device is operated to produce electrical stimulation comprising a pulse of 0.1-3 msec duration, 25-75 Hz, and 5-15 volts, with a stimulus train duration of 10-30 msec.

11. (Original) A method for increasing cerebral blood flow in a patient, comprising the steps of:

providing a transcutaneous electrical stimulating device;

applying the electrical stimulating device to the skin of the patient at a region adjacent the brain stem; and

operating the electrical stimulating device to stimulate or inhibit nerve impulses of the brain stem, thereby producing vasodilation in the cerebral vasculature, thereby increasing cerebral blood flow.

12. (Original) The method of claim 11, further comprising the steps of measuring cerebral blood flow before and after the step of operating the electrical stimulating device.

13. (Original) The method of claim 12, further comprising the step of determining the increase in cerebral blood flow produced by operating the electrical stimulating device.

14. (Original) The method of claim 11, wherein the electrical stimulating device is applied to the skin of the patient at a region adjacent the medulla.

15. (Original) The method of claim 11, wherein the electrical stimulating device is a GRASS stimulator.

16. (Original) The method of claim 11, wherein the electrical stimulating device is operated to produce electrical stimulation comprising a rectangular square pulse.

17-18. (Cancelled)

19. (Original) A method for increasing cerebral blood flow in a patient, comprising the steps of:

providing an elongate member having a proximal end, a distal end, and an electrical stimulating device mounted on the distal end of the elongate member;

inserting the elongate member between lumbar vertebrae, low cervical vertebrae, or high thoracic vertebrae into the subarachnoid space;

advancing the electrical stimulating device cephalad and positioning the electrical stimulating device adjacent the brain stem; and

operating the electrical stimulating device to stimulate or inhibit nerve impulses of the brain stem, thereby producing vasodilation in the cerebral vasculature, thereby increasing cerebral blood flow.

20-26. (Cancelled)

27. (Original) A method for increasing cerebral blood flow in a patient, comprising the steps of:

providing an elongate member having a proximal end, a distal end, and an electrical stimulating device mounted on the distal end of the elongate member;

inserting the elongate member between lumbar vertebrae, low cervical vertebrae, or high thoracic vertebrae into the subarachnoid space;

advancing the electrical stimulating device cephalad and positioning the electrical stimulating device adjacent the cervical sympathetic chain; and

operating the electrical stimulating device to stimulate or inhibit nerve impulses of the cervical sympathetic chain, thereby producing vasodilation in the cerebral vasculature, thereby increasing cerebral blood flow.

28-35. (Cancelled)

36. (Original) A method for increasing cerebral blood flow in a patient, comprising the steps of:

measuring a baseline cerebral blood flow;

performing transcutaneous electrical stimulation on the patient by applying an electrical stimulating device to the head of the patient, thereby producing vasodilation in the cerebral vasculature, thereby increasing cerebral blood flow;

measuring a second cerebral blood flow; and

comparing the measured second cerebral blood flow to the measured baseline cerebral blood flow to determine the increase in cerebral blood flow produced by electrical stimulation.

37-42. (Cancelled)

43. (Original) A method for increasing cerebral blood flow in a patient, comprising the steps of:

providing an electrical stimulating device;
applying the electrical stimulating device to the sympathetic nervous system; and
operating the electrical stimulating device to inhibit nerve impulses of the
sympathetic nervous system, thereby producing vasodilation in the cerebral vasculature, thereby
increasing cerebral blood flow.

44-53. (Cancelled)